CASE REPORT

UNUSUAL PRESENTATION OF MISSED APPENDICITIS

Nadia Khitab

Department of Surgery, DHQ Teaching Hospital, D.I.Khan, Pakistan

ABSTRACT

I present the case of old age man, who presented with pain right side of the abdomen with huge anterior abdominal wall swelling, along with loose motion. His inflammatory markers were unremarkable, and his ultrasound showed fluid-filled bowel loops, with no ascitic fluid. The appendix could not be visualised. On examination, he had tender and distended abdomen and bowel sounds were exaggerated. Laparotomy was performed and it came out to be missed appendicitis which buried into the abdominal wall and caused the pus track down anteriorly to appear as anterior abdominal wall abscess as one of its rare complication. Appendectomy was done alongside abdominal wall exploration. Pus was drained. The patient improved and went home in the second post-operative week.

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INTRODUCTION

Acute appendicitis is one of the most commonly encountered acute surgical emergencies that should not be missed.[1] It is having very low mortality and morbidity if managed immediately.[2] However, it does not always manifest in the classical way of peri-umbilical pain radiating to the right iliac fossa in association with nausea and vomiting.[3] For example in certain age groups as in patient at the extremes of age due to diminished inflammatory response, can present atypically with subtle clinical signs, and may be misdiagnosed.[3]

Such missed cases may get complicated with the formation of localized abscesses, depending on the position of the appendix, which not only carries ten times greater mortality but also the need for prolonged treatment and hospital stay.[4,5] To avoid such complications a high index of suspicion is required.[3]

CASE PRESENTATION

A 65-year-old gentleman presented with nonspecific abdominal pain for a long time, which became more localized to the right side of abdomen for the recent few days. He also experienced progressive anorexia associated with loose motions. He was brought to the hospital via emergency. He also had low-grade fever and mild backache. He denied any dysuria. He was non-smoker and his past medical history was unremarkable.

Corresponding Author:

Dr. Nadia Khitab
Department of General Surgery,
DHQ Teaching Hospital
Dera Ismail Khan, KPK , Pakistan
E-mail: Drnaadia@ymail.com

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Physical examination revealed an ill-looking man lying uncomfortable in the bed. He was afebrile and pale in appearance. Pulse was 90/min, and BP 90/70 mmHg. He was lying still in the bed reluctant to move because of tenderness. He had huge anterior abdominal swelling that on examination was oedematous, non-emphysematous, tender and hot to touch.

Abdomen on examination was distended and tender to palpation all over but more specifically in the right lumbar and iliac fossa region. Bowel sounds were exaggerated. Laboratory data indicated TLC $9.2\times10^6/\mu$l, and Hb 8.8 g/dl. Blood chemistry was within normal range. Abdominal x-ray revealed fluid-filled bowel loops and ultrasound showed distended small gut loops with no ascites. Appendix couldn't be visualized. There were multiple gas containing abscesses in the abdominal wall.

The patient underwent laparotomy which revealed retro-caecal perforated appendix which burried into the abdominal wall and caused the pus to track down anteriorly to appear as abdominal wall swelling. The peritoneal cavity was clear without any contamination. Appendectomy was performed and abdominal wall was explored and 1.5-2 liter of foul-smelling pus was drained. The peritoneal cavity was washed with normal saline and two drains were placed, one in the right paracolic gutter and the second one in the abdominal wall. The muscles were viable so no debridement was performed. The abdomen was closed. The patient recovered smoothly and oral intake was started on the 4th post-operative day. The patient was discharged on the 2nd postoperative week and called for a follow-up. Later pus culture revealed E. coli.

Diagnosis of appendicitis is clinical one and specialised investigations are rarely required.

However, certain investigations should allow the exclusion of other pathologies and help in supporting a clinical diagnosis and planning treatment like simple urine and blood tests to imaging studies like ultrasound, and CT scan.

Differential diagnosis includes; intestinal obstruction secondary to any pathology, volvulus, intussuception, gastroenteritis, diverticulitis, rectal sheet hematoma, incarcerated hernia, malignancy, and mesenteric ischemia

Initially the patient was kept nil by mouth and treated with intravenous fluids and antibiotics. The patient was observed for progression of abdominal signs till that time imaging was performed and in the meantime, all preparations for theatre been done.

The patient was allowed orally on 4th postoperative day. Drain was removed when the output was minimal. The patient was discharged in the second post-operative week and was called for follow up.

DISCUSSION

Acute appendicitis is a common surgical emergency with estimated prevalence of 7%.[1] It is more common in young, although not exclusive to this group.[3] In the majority of cases, the diagnosis is reached on the basis of history and clinical examination. However, it is not always the case. In particular age groups and depending on the anatomical position of appendix, it may present atypically, either in the form of abscesses in soft tissues, appendicular masses or lead to intestinal obstruction, which may result in high morbidity and prolonged hospital stay.[2,3,6]

There are certain intra-abdominal pathologies that may present atypically, but appendix, although most common has rarely been discussed with such unusual presentations.[3,6] There are only few case reports that discuss the unusual presentation of missed appendicitis. Among these reports description are similar regarding patients' presentation and their management. The causes are usually unclear before surgery and patients are critical on presentation. So surgery is needed in almost all cases.

In addition to above-mentioned experience, there are still some important issues that can be addressed based on our present case. Firstly, the patient with abdominal pain at extreme of ages may present with less classical symptoms and physical signs.[6] There is diminished leukocytosis and perforation is common because of delayed diagnosis, keeping such patient at high risk, so in such cases high index of suspicion is required.[3,5]

Secondly, abdominal CT is the gold standard diagnostic tool in patients with abdominal pain provided the patient is stable.[1] It provides more accurate findings and helps in evaluation of extension of involvement and helps the surgeon to pre-plan the treatment options.[2,7] But in this case, CT was not possible because of non-stability of the patient.

In this case and others where the diagnosis is obscure and the patients present with atypical complaints which don't point towards any specific diagnosis, we should go for laparotomy, which is not only diagnostic but also therapeutic. In such cases, diagnostic laparoscopy followed by laparotomy can be considered a better option.

CONCLUSION

Appendicitis at extremes of ages continues to be a challenging surgical problem due to atypical presentation increasing its morbidity and mortality. Results might improve by considering the diagnosis followed by surgical consultation and operations.

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CONFLICT OF INTEREST
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